

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

EARLEY, Martin, G.
Patent Attorney Services
26 Ellingworth Parade
Box Hill, VIC 3128
AUSTRALIE

Date of mailing (day month year) 06 October 2000 (06.10.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference f295100	
International application No. PCT AU99/00751	International filing date (day month year) 10 September 1999 (10.09.99)

1. The following indications appeared on record concerning		
<input checked="" type="checkbox"/> the applicant	<input checked="" type="checkbox"/> the inventor	<input type="checkbox"/> the agent <input type="checkbox"/> the common representative
Name and Address CARKEEK, Stephen, Robert 13 Hal Street Hawthorn, VIC 3123 Australia	State of Nationality AU	State of Residence AU
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:		
<input type="checkbox"/> the person	<input type="checkbox"/> the name	<input checked="" type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence
Name and Address CARKEEK, Stephen, Robert 106 Main Road Clayton South, VIC 3169 Australia	State of Nationality AU	State of Residence AU
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
3. Further particulars of the change:		
4. A copy of this notification has been sent to:		
<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Office concerned	<input checked="" type="checkbox"/> the International Searching Authority

14, chemin des Colombettes
1211 Geneva 20, Switzerland

PCT/INT/01/01/01/01

PCT/INT/01/01/01/01

PATENT COOPERATION TREATY

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international application No. PCT AU99 00751	International filing date (day month year) 10 September 1999 (10.09.99)

1. The following indications appeared on record concerning:

☒ the applicant
 ☐ the inventor
 ☐ the agent
 ☐ the common representative

Name and Address JAYFIELD PTY. LTD. 2nd floor 181 Fitzroy Street St. Kilda, VIC 3182 Australia	State of Nationality AU	State of Residence AU
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person
 ☐ the name
 ☒ the address
 ☐ the nationality
 ☐ the residence

Name and Address JAYFIELD PTY. LTD. 613 St Kilda Road Melbourne, VIC 3004 Australia	State of Nationality AU	State of Residence AU
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further indication of record:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other

PATENT COOPERATION TREATY

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NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU 1/7/01

To
 Assistant Commissioner for Patents
 United States Patent and Trademark
 Office
 Box PCT
 Washington, D.C. 20231
 ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day month year)

11 May 2000 (11.05.00)

International application No.

PCT AU99 00751

Applicant's or agent's file reference

f295100

International filing date (day month year)

10 September 1999 (10.09.99)

Priority date (day month year)

11 September 1998 (11.09.98)

Applicant

CARKEEK, Stephen, Robert

1. The designated Office is hereby notified of its election made



in the demand filed with the International Preliminary Examining Authority on

04 April 2000 (04.04.00)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was



was not

made before the expiration of 19 months from the priority date of where Rule 32 applies within the time limit under Rule 32.2(b)

RECEIVED
 10 JUL 2001
 INTERNATIONAL BUREAU

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 0295100	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/AU 99/00751	International filing date (<i>day/month/year</i>) 10 September 1999	(Earliest) Priority Date (<i>day/month/year</i>) 11 September 1998
Applicant JAYFIELD Pty Ltd et al		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ **Certain claims were found unsearchable** (See Box I)

3. ☐ **Unity of invention is lacking** (See Box II)

4. With regard to the **title**, ☒ the text is approved as submitted by the applicant

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**, ☒ the text is approved as submitted by the applicant

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report,

submit a statement of the reasons therefor.

☒ **Figure 1** is not acceptable

☐ because the applicant failed to suggest a figure

☐ because this figure better characterizes the invention

INTERNATIONAL SEARCH REPORT

International application No

PCT/AU 99/00751

A. CLASSIFICATION OF SUBJECT MATTERInt Cl⁶: A47G 23/03, B32B 33/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A47G 23/03, B32B 33/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

AU : IPC AS ABOVE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP, 10211078 A, (YAMAURA SHIKI INSATSU KK) 11 August 1998 (Patent Abstracts of Japan)	1
Y	JP, 10085114 A, (YUUKOU SHOJI KK) 7 April 1998 (Patent Abstracts of Japan)	1
Y	EP, 107197 A2, (BECTON, DICKINSON and Co) 2 May 1984	1

☒ Further documents are listed in the continuation of Box C☒ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"F" earlier application or patent but published on or after the international filing date

"T" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

* For further information see the International Search Report

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PO BOX 200
WODEN ACT 2606
AUSTRALIA

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DAVID LEE

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU 99/00751

C (Continuation).

DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 2229083 A, (John Quarmby & Son Ltd) 19 September 1990	1
A	GB 2054369 A, (ERNST SPIRIG) 18 February 1981	1
A	US 4433823 A, (PEARSON) 28 February 1984	1
A	CH 673010 A, (WERNLI) 31 January 1990	1
A	JP 09047347 A, (OKUDA MARK KK) 18 February 1997 (Patent Abstracts of Japan)	1
A	JP 57-46846 A, (TAKAO WADA) 17 March 1982	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU 99/00751

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information

Patent Document Cited in Search Report		Patent Family Member				
JP	10211078					
JP	10085114					
EP	107197	CA 1221282	DE 3372796	DK 4847/83	ES 526699	JP59095135 A2
		US 4515851				
GB	2229083					
GB	2054369					
US	4433823	CA 1171678	DE 3170179	EP 56897	JP57125713A2	
CH	673010					
JP	09047347					
JP	57-46846					
						END OF ANNEX

PATENT COOPERATION TREATY

REC'D 20 JUL 2000

WIPO PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference IPB / 25609	FOR FURTHER ACTION		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA 416)
International application No PCT/DK98/00376	International filing date (day month year) 04/09/1998	Priority date (day month year) 05/09/1997	
International Patent Classification (IPC) or national classification and IPC E04D13/02			
Applicant VELUX INDUSTRI A/S			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 5 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

11 01 1999

Authorized officer



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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/DK98/00376

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

2,4-8	as originally filed		
1,3	as received on	06/07/1999	with letter of 02/07/1999

Claims, No.:

1-12	as received on	06/07/1999	with letter of 02/07/1999
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Drawings, sheets:

1/2,2/2	as originally filed
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2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/DK98/00376

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-12
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-12
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-12
	No:	Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement

1 Reference is made to the following documents:

D1: WO-A-95/28536

D2: EP-A-0 038 222

2 The subject-matter of present claim 1 is new (Article 33 (2) PCT). Document D1, which is considered to represent the most relevant state of the art, discloses (cf. figure 4 with corresponding text side 5, lines 16-21):

2.1 "A deformable roof flashing material comprising a sandwich construction with two outer layers (5,6) of metal foil and at least one intermediate non-adhesive layer (4) positioned between the outer layers, said material having at least in one direction a continuous waveform,"

from which the subject-matter of claim 1 differs in that:

2.2 "at least the intermediate layer adjacent to the outer layers is/are made from a resilient material, and in that said waveform is formed in such a manner that it maintains the mutual positioning between the outer layers and the adjacent intermediate layer by friction."

2.3 As disclosed in D1 on page 5, lines 7-15 the foils are held together by an efficient lock, which results from the back folding at one end of the wave crests marked by ref. 8 in figure 4. The intermediate layer (7) may be non-adhesive.

3 The subject-matter according to present claim 1 is based on the exercise of an inventive step in the sense of Article 33(3) PCT, since none of the documents cited in the research report indicate the solution, that the outer foils can be held together by friction only, nor give hints which in combination could lead thereto

Admittedly (cf. See page 4, lines 27-28)

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/DK98/00376

- 4 The industrial applicability is also given (Article 33(4) PCT).
- 5 Dependent claims 2-11 concern advantageous further developments of the subject-matter according to claim 1 and fulfil therefore as well the requirements of Article 33 PCT as regards novelty, inventive step and industrial applicability.
- 6 The method for manufacturing in claim 12 also fulfils the requirements of Article 33 PCT.

A DEFORMABLE ROOF FLASHING MATERIAL AND A METHOD FOR
THE MANUFACTURE OF A FLASHING RAIL WITH A SKIRT MADE
FROM THE ROOF FLASHING MATERIAL

5 The invention relates to a deformable roof flash-
ing material for use in connection with skylight
windows and the like roof penetrating structures, said
roof flashing material comprising a sandwich construc-
tion with two outer layers of metal foil and at least
10 one intermediate non-adhesive layer positioned between
the outer layers, in which the material at least in one
direction has been given a continuous waveform.

Such deformable flashing materials are used for
providing a water and snow tight connection between the
15 roof penetrating building structure which may be a
chimney, an air shaft, a skylight window or the like,
and the surrounding roofing.

Particularly in connection with corrugated roof-
ing, such as for instance tiles, whereby, during
20 mounting, a considerable deformation of the flashing
material is required, the use of flashing materials
with built-in excess of material in the form of corru-
gations or foldings has been proposed as a replacement
for the previously used sheet lead, which admittedly
25 has a good deformability but the use of which on the
other hand is connected with problems seen from an
economic and environmental point of view.

Thus, the EP Patent No. 38 222 and the interna-
tional published specification no. WO95/28536 disclose
30 sandwich materials or composite materials, in which the
surplus material has been provided by corrugation in
waveform in one or two directions of the flashing
material

mounting without the risk that the layers of the sandwich constructions are displaced substantially relative to one another, which construction on the other hand, however, allows a certain relative movement
5 of the layers and which is moreover easy and cheap in manufacture and at the same time meets the requirements to a sufficient surplus of material.

This object is met by a roof flashing material, which is characterized in that at least the intermedi-
10 ate layer/s adjacent to the outer layers is/are made from a resilient material, and in that said waveform is formed in such a manner that it maintains the mutual positioning between the outer layers and the adjacent intermediate layer/s by friction.

15 The special embodiment of waveform in combination with the resilient intermediate layer/layers causes an effective securing between the outer layers and the adjacent layers without the use of adhesive agents, which might prevent deformation of the material during
20 adaptation to the surrounding roofing, and at the same time the single waveform establishes the desired surplus of material, the simplified manufacture and the freedom of choice in respect of the number of layers and/or the thickness thereof. Furthermore, the material
25 has the advantage that it will be self-closing in case of cracks or ruptures.

In a preferred embodiment of the invention the waveform is made as a substantially harmonic sine curve, an optimal mechanic friction being obtained
30 between the outer layers and the adjacent intermediate layer/layers which are at the same time allowed to remain undeformed during the working process.

Further advantageous embodiments of the invention

are shown in the following figures.

P A T E N T C L A I M S

1. A deformable roof flashing material for use in connection with skylight windows and the like roof penetrating structures, said roof flashing material comprising a sandwich construction with two outer layers (2, 3) of metal foil and at least one intermediate non-adhesive layer (4; 5-7) positioned between the outer layers, said material having at least in one direction a continuous waveform, c h a r a c t e r -
10 i z e d in that at least the intermediate layer/s (4; 5, 6) adjacent to the outer layers is/are made from a resilient material, and in that said waveform is formed in such a manner that it maintains the mutual positioning between the outer layers and the adjacent inter-
15 mediate layer/s by friction.

2. A roof flashing material according to claim 1, c h a r a c t e r i z e d in that said waveform is made as a substantially harmonic sine curve.

3. A roof flashing material according to claim 2,
20 c h a r a c t e r i z e d in that the degree of corrugation expressed as the ratio between the length after corrugation (Lk) and the length in the starting condition (Lu) is in the range of 0.4 to 0.8, preferably 0.55 to 0.75.

25 4. A roof flashing material according to claim 2 or 3, c h a r a c t e r i z e d in that the ratio between the horizontal distance from wave crest to wave valley (Lh) and the vertical distance from wave crest to wave valley (Lv) is within the range of 0.8 to 1.2.

30 5. A roof flashing material according to any of the preceding claims, c h a r a c t e r i z e d in having a single resilient intermediate layer (4) made

two resilient intermediate layers (5, 6) of rubber and a metal foil layer (7) interposed between these layers.

7. A roof flashing material according to claim 5 or 6, c h a r a c t e r i z e d in that said rubber material consists of EPDM rubber.

8. A roof flashing material according to claim 5, 6 or 7, c h a r a c t e r i z e d in that each resilient rubber layer (4; 5, 6) has a thickness between 0.1 and 3.0 mm, preferably between 0.5 and 1.5 mm.

10 9. A roof flashing material according to one of the preceding claims, c h a r a c t e r i z e d in that the metal foil of the outer layers (2, 3) consists of aluminium, zinc or copper.

15 10. A roof flashing material according to claim 9, c h a r a c t e r i z e d in that each outer layer (2, 3) has a thickness between 0.05 and 0.5 mm.

11. A roof flashing according to claim 9 or 10, c h a r a c t e r i z e d in that the outer layers (2, 3) consist of parts of one and the same piece of material which is folded along a folding line.

12. A method for the manufacture of a flashing rail with a skirt made from the roof flashing material according to any of claims 1-11, c h a r a c t e r i z e d in

- 25 - conveyance of a web-shaped metal foil,
- folding of the metal foil,
- insertion of a rubber cloth in the folded metal foil,
- corrugation of metal foil with rubber cloth,
- 30 - flattening of the not folded side edge of the folded metal foil for the formation of a flat flap,
- cutting of the metal foil web in predetermined

- introduction of the flat flap in a rabbet channel in a flashing rail, preferably together with a resilient, adhesive strip of for instance butyl rubber, and
- bending of the flattened flap for securing together the skirt and the flashing rail.

10

15